PRENTICE COMPUTER CENTRE

UNIVERSITY OF QUEENSLAND, ST. LUCIA, QUEENSLAND, AUSTRALIA. 4067.

NEWSLETTER

N-298 March 1985

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Authorized by the Director of the Computer Centre

Principal Service Centres

	Extensions
Contract Programming & Feasibility Studies	3944
System Status Automatic Answering	3101
General Enquiries & Course Enrolments	3018
Training & Courses Information	3021
Dial–up modem numbers	(300 bps) 3772977
	(1200 bps) 3772922

Consulting

	Mail Box	***Extension***
Central HELP Desk	CCHELP	3025
Distributed Computing and Network HELP Desk	CCDCHELP	3938
Accounts		2188
Operations		3212
Program Librarian		3943

Engineering and Maintenance

Development and communications	ENGIN
Mini/Micro support	ENGIN

Griffith University:

Consulting	7682
Computer Services	7560
Computing Co-ordinator	7561

Terminals, CDN & Equipment Pricing

For prices on microcomputers, terminals, line charges, computer bits and pieces, type HELP PRICES on your terminal. This will provide appropriate menus.

1. Newsletter Summary

- Our auto answer modems on telephone number 377 2922 have been upgraded to 2400 bits/sec. This will enable users off-campus with PDP11 or VAX systems to make occasional use of the DECNET packet network facilities without the cost of a dedicated line.
- A new electronic mail system obtained from Edinburgh Regional Computer Service has been installed on the KL10 for trial use pending proposed implementation as the standard system on 1.7.85.
- Private magnetic tapes which are not registered for storage at the Centre should be collected immediately after processing as the Centre cannot accept responsibility for their safe custody.
- Users are also reminded that the Centre does not accept liability for reruns or credit as a result of malfunction on unusually long jobs.
- A new version of the IMSL library (edition 9.2) will be installed in the near future and edition 8 will be deleted on 1 April.
- The FACIT letter quality printer has replaced the Diablo which will be withdrawn from service on 1 April.
- A description is provided of the new version of Statistical Package for Social Science (SPSS) now available on the VAX 11/780.
- We have problems in manning our 'HELP DESK' for reporting faults on distributed computers. Please ring extension 3018 between 8.30am and 4.30pm and the answering machine extension 3938 at other times.
- KERMIT is a software package for terminal simulation and file transfers for personal computers. Implementations are available for a number of PCs. Some new versions are advised in this newsletter.
- Details are given of a low cost upgrade for PDP11/34 and PDP11/23 systems available from and partially developed by the Centre. As an example, the upgrade will enable the processor to operate at about twice the speed of a PDP11/34 system and memory can be increased to up to 4Mbytes.
- The VG Package is an efficient data base system with particular application to bibliographies. It has improved features to sort records into Library of Congress classifications.
- Details are given of the short courses provided at no charge to staff and post-graduate students.
- As a result of numerous requests for information, advice is provided on the Centre's plans to establish a service to enable staff and students to purchase personal computers under special academic prices and conditions. Subject to necessary approvals and finalisation of contracts, it is planned to introduce this service by mid-year but, in the first instance, limited to IBM and Apple personal computers. The Centre currently has some arrangements for the purchase of PCs at discounted prices on behalf of University Departments.
- The Prentice Computer Centre is now organised into five sections, viz: *Central Computer Facilities, Distributed Computing, Engineering & Communications Services, Applications Development* and *Finance & Administration*. The new locations of the Sections in the Hawken Building and old Computer Science Huts are advised.

- Finally, the AVCC paper on Copyright and Computer Programs is reproduced.

Director
extension 2189

2. Engineering and Communications — Graham Rees, ext. 3288

2.1 Auto Answer Modems

The V.22 1200 bps auto answer modems on 377 2922 connected to the MICOM Circuit Switch have been upgraded to V.22.bis types which will operate at 2400 or 1200 bps FDX. Speed selection is automatic during call set up and cannot be changed during operation. V.22 modems will operate at 1200 bps as before while V.22.bis modems will operate at 1200 or 2400 bps as required. The number of modems on the rotary group has been increased from 2 to 3.

Contact Dal Anderson, ext. 3166, for price and availability of recommended V.22 and V.22.bis modems.

Graham Rees
extension 3288

2.2 Switched DECNET Services

The Centre has recently installed a V.22.bis auto answer modem which gives access to the DECNET packet switched network rather than the MICOM circuit switch. This is useful for those few off campus systems (PDP11s and VAXes) who would like to run DECNET and enjoy the benefit of worldwide data communications but don't feel the volume or use, yet justifies the cost of a private leased Telecom Datel line.

For further information talk to Arthur Hartwig on extension 4079.

Graham Rees
extension 3288

2.3 CSIRONET Summaries

Users of CSIRONET facilities are permitted a brief sigh of relief following CSIRO's announcement that the CYBER-76 may yet live to the end of 1985. HOWEVER, as mentioned in Newsletter N-296 (January 1985), we still need your summaries of what sorts of things you do with CSIRONET. This is to help us work out how to choose the best upgrade path for the gateway facility between UQNET and CSIRONET.

Summaries should be sent as soon as possible (preferably by the end of May) via electronic mail to username NETWORKS on UQKL10:: or UQVAX::, or via paper mail to Networks Coordinator, Prentice Computer Centre.

Bryan Claire
extension 4078

2.4 New Mail System for the DECsystem-10

A new mail system written by Mark McIntosh of the Edinburgh Regional Computer Centre has recently been installed on the DECsystem-10. It is proposed that this new system will become the standard DECsystem-10 mail system on 1 July 1985. In the meantime users are invited to try it out and comment.

The new mail system offers a number of facilities not available under the old system:

1. Mail messages can be selectively read – you don't have to read all messages to get to the most recent.
2. Mail can be scanned (by the SCAN command) to generate a listing of all mail in which a line for each message in the user's mail box shows the subject field from the message and message sender.
3. More helpful command interface: typing "?" at any stage during the type-in of a command will display the options available.
4. Incoming mail from AUSTPAC or overseas X.25 networks is automatically placed into the user's mail box soon after its receipt. Replies can be made to such mail from within the mail system without having to run a separate program.
5. Mail can be sent to users at certain sites connected to overseas X.25 networks and copies kept in a journal.

Planned Future Extensions

It is planned to extend the mail system in the future to provide for:

1. sending mail to VAX/VMS users on systems connected to the University network and using DECNET,
2. sending mail to CMS users on the IBM 3083 system,
3. sending mail to UNIX systems,

and later provide for users of those systems to send mail to DECsystem 10 users.

It is also planned to provide a mechanism for users of the DECsystem 10 to specify that they wish to forward their mail to another user-id or even a user-id on another system.

Example of the use of the New Mail System

```
;In this example text beginning with a semi-colon is commentary text
;to help explain the action of the system.

;Invoke the new mail system
.R NMAIL

;On entry it tells me how many unread messages are in my mail box
You have one new message.
MAIL>HELP

        Typing a ? at any time will give help on commands or command arguments
        you may type. Typing ESCape will make the command parser attempt to
        complete a command being typed in.

        Note you cannot use the "?" and ESCape features when in LINEMODE
```

```
Type one of the following for more information:

?                       for a list of commands
HELP NEWS               for new features in this version
HELP BUGS               for a list of known bugs in this version
HELP command            for help on a specific command

;Try out the "question-mark" feature. Note that I don't have to type
;a <CR>. The mail system instantly recognises the "?".
MAIL>? one of the following:
Action      Bboard      Blank       Compose     Copy        Daytime     Delete
Exit        Forward     Gripe       Headers     Help        Hold        Next
Options     Quit        Read        Release     Reply       Scan        Send
Set         Status      Take        Tell        Undelete    Version

;Now do a scan to see what mail is in my mail box
MAIL>SCAN
 ---     1 (  1140)   ROBERTUQ                    Re: NETWORK MAIL
 ---     2 (  1020)   JOHANNBACHUQ                Re: ADDRESS'S
*--->    3 (  1505)   JOHANNBACKUQ

;Notice the pointer to the most recent message – the one which is still unread.
;Instead of the READ 3 command READ could have been given since the pointer was
;already at message 3.
MAIL>READ 3
From:               JOHANNBACH (on UQ DEC-1099)
Date:               Thursday, 21-Mar-85 10:45:23-GMT
Message-ID:         <132101-345-362UQ>
To:                 PETERJONES

--------
This is a message to demonstrate the new mail facility on the DECsystem10.

--------
;Now I will send a message to another user. I don't use the SEND command
;since that is used to send a file (which I have probably previously prepared
;using an editor such as EDIT).
MAIL>TELL SMITH
Subject: TEST MESSAGE
Enter message, end with ↑Z
THIS IS JUST A MESSAGE TO DEMONSTRATE THE FACILITIES OF THE NEW MAIL.
↑Z
;The mail system doesn't immediately put my message into SMITH's mail box.
;It is put on a queue for delivery a little later or when SMITH's mail box
;becomes free.
Message queued for delivery.

;Return now to the monitor
MAIL>EXIT
```

Mail Description Document

A more detailed of the new mail system can be found in the file DOC:MAIL.LPT.

Mail Support Program

The FINGER program acts as a support program for the mail system by allowing users to request the identity of other users by asking on PPN, or user name or mail system name. The WHO monitor command can be given a list of PPNs, user names or mail system group names and will then type the user name, PPN and any special mail system names.

e.g. .WHO SMITH,JONES,[10,20]

```
SMITH     [140,170]
SMITH     [140,102]
SMITH     [4000,700]
JONES     [100,4]
JONES     [10,7436]
SADIE     [10,20]     <TEA LADY>
```

where the user names are listed on the left, and special mail system names on the right, enclosed in angle brackets. Note that the user names are those defined in the system accounts file NOT those names users set for themselves through the /NAME switch to LOGIN.

The FINGER command types the same information as the WHO command but in addition types out whether the user is logged in, the date and time when his mail was last read (if there is no unread mail in his mail box) or the user names of users who last sent mail to the mail box if there is unread mail in the mail box.

The FINGER command will also read the file MAIL.PRF in the directory of the user referenced to search for a "FINGER profile" which is typed. The Finger profile provides a means for a user to give other users some identification information. For example, my MAIL.PRF file contains the following "finger profile"

```
;Finger-profile
Senior Systems Programmer – Engineering & Communications
Telephone (07)377 4079
```

and any user who issues a FINGER command with an argument which references me will have the above lines typed on their terminal as well.

Further information on the WHO & FINGER commands may be obtained by giving the monitor command

HELP FINGER

Arthur Hartwig
extension 4079

3. Central Computing Facilities – Allan Woodland, ext. 2935

3.1 Operations – Sandra Campbell, ext. 3471

3.1.1 Private Tapes

Unregistered private tapes are, at the moment, being left at the Centre for far too long. As we have a serious space problem, we will be returning all users' privately owned magnetic tapes which are not registered for permanent storage at the Centre ($0.50 a month fee), to the users' pigeon hole each morning.

It would be appreciated if clients would assist by collecting these tapes within a few hours of completion of processing.

If the above does not resolve the situation the offending tapes will be returned by mail.

Sandra Campbell
extension 3471

3.1.2 Failure of Large Jobs

From time to time the Centre receives requests for refunds from clients whose jobs have failed for reasons outside their control. Such reasons include machine failure, operator intervention to allow scheduled backup and others.

Your attention is drawn to clause 12 of the *Conditions of Use and Liability Statement* which states "The University will be under no liability to re-run or allow credit for any loss resulting from the failure of the user adequately to safeguard himself against the possibility of loss of information within the Prentice Computer Centre systems."

One safeguard which is frequently ignored is to break large jobs into several smaller ones or to employ checkpointing in batch jobs. The maximum elapsed time between checkpointing or for a single job should not normally exceed about twenty minutes.

In the future, refunds – which are at the discretion of the Centre – will not be considered unless such safeguards have been taken.

Please contact the HELP desk (extension 3025) if you require advice on the use of checkpointing.

Allan Woodland
extension 2935

3.2 Software Maintenance – Ian Burgess, ext. 4074

3.2.1 IMSL on the KL-10

IMSL Inc. has advised us that they will be shipping edition 9.2 of the IMSL library for the KL in the immediate future. To ensure that the new version can be installed immediately on arrival, the following changes to the IMSL libraries on the KL will take place on **1 April**.

NEW:IMSL (edition 9.1) will be moved to STA:
STA:IMSL (edition 9) will be moved to OLD:
OLD:IMSL (edition 8) will be deleted.

Lee MacDonald
extension 3943

3.2.2 FACIT Printer

The DIABLO letter quality printer has been replaced by a new FACIT printer. (The DIABLO will be unavailable from 1 April).

Information about the operation of the FACIT printer may be found on-line as follows:

IBM:	INFO FACIT
	INFO TPRINT
KL10:	HELP FACIT
	HELP TYPE

VAX: HELP FACIT
HELP TYPE

Further operating instructions are available on the notice board above the FACIT printer in the GRAPHICS room.

Helen Bergen
extension 2953

3.2.3 Change of Print Wheels on the FACIT

Clients who use the FACIT letter quality printer are advised that the 'ELITE 12' print wheel is no longer available.

This particular wheel is unobtainable and we would advise clients looking for a similar typeface to request the 'ITALIC 12'.

Sandra Campbell
extension 3471

3.2.4 SPSS^X: Some Introductory Notes

SPSS^X is an "alternative" version of the popular SPSS package, which is now available on the VAX system.

It differs in many respects from "regular" SPSS – especially with regard to definition/transformation commands and in terms of available statistical, reporting and other procedures.

A comprehensive list of differences between SPSS and SPSS^X is given as Appendix A ("Help for Old Friends") of the SPSS^X User's Guide (pp 749-773). The purpose of this note is to provide a brief summary of the more important fundamental changes.

1. In the command file, there is no longer the "control field – specification field" structure. Each command begins with a *keyword* (which may be a key phrase), but the specifications relating to that keyword follows after one or more spaces. Continuation lines are denoted simply by not beginning in column 1 of the new line.
2. The DATA LIST command is used instead of the VARIABLE LIST/INPUT FORMAT combination; *but*, DATA LIST in SPSS^X is *not* identical to the command of the same name in SPSS.
3. SPSS^X recognizes both *user-defined* and *system-defined* missing values; in addition to declared missing values (via a MISSING VALUES command), SPSS^X recognizes blank numeric fields as missing also ... it does *not* zero-fill blank fields. Further, a range of values (including use of keywords such as THRU, HIGHEST, LOWEST) may be declared missing.

A simple example:

Suppose a data-file (SPSSX.DAT) appears as follows, with each case (cases 1-12) showing the values of variables PARTY, AGE, SEX, INCAT:

cols:	5-6	8-9	1	13
1.	LIB	36	M	1
2.	LIB	36	M	1
3.	LAB	38	M	1
4.	NAT	39	M	1
5.	LAB	36	F	2
6.	LIB		M	5
7.	LAB	37	M	2
8.	XXX	36	M	5
9.	NAT	36	X	1
10.	LAB	39	M	2
11.	XXX	39	M	2
12.	XXX	38	M	

Note:

In SPSS, AGE for case 6 would be interpreted as 0; likewise, INCAT for case 12; In SPSS^X, these will be "system-defined" missing values.

SPSS Command File:

```
RUN NAME            SAMPLE COMMAND FILE
VARIABLE LIST       PARTY AGE SEX INCAT
INPUT MEDIUM        SPSSX.DAT
N OF CASES          UNKNOWN
INPUT FORMAT        FIXED(4X,A3,X,F2.0,X,A1,X,F1.0)
MISSING VALUES      PARTY('XXX')/SEX('X')/
                    AGE,INCAT(0)      (using blanks → 0 feature)
PRINT FORMATS       PARTY,SEX(A)
.....                                 (this is a procedure command)
READ INPUT DATA
FINISH
```

Corresponding SPSS^X Command File:

```
TITLE SAMPLE COMMAND FILE
FILE HANDLE XXX NAME='SPSSX.DAT'      (equates XXX with real data file)
DATA LIST FILE=XXX/
        PARTY 5-7 (A) AGE 9-10 SEX 12 (A) INCAT 14
MISSING VALUES SEX ('X')/PARTY('XXX')  (blank numerics also!)
.....                                 (this is a procedure command)
FINISH
```

To run SPSS^X on VAX

SPSSX /OUTPUT=outfilespec commandfilespec

(i.e. identical to SPSS, except that the command is SPSSX)

A copy of the SPSS^X User's Guide is available at the Hawken Batch Station for reference only. If you require further assistance please phone me on extension 3943.

Lee MacDonald
extension 3943

4. Distributed Computing – Geoffrey Dengate, ext. 3391

4.1 Fault Reporting and Distributed Computing Help Desk (x3938)

Due to circumstances beyond our control the Fault Reporting phone number (x3938) cannot be manned for the immediate future.

To report faults during business hours (8.30am – 4.30pm) phone x3018 where the necessary information will be collected and passed on to the appropriate staff.

To report faults outside business hours phone x3938 where your fault will be recorded by the automatic answering machine. These faults will be attended to during the next work day.

I hope you bear with us until the normal service can be restored.

Geoffrey Dengate
extension 3391

4.2 KERMIT – New Versions

Following receipt of a new KERMIT tape (dated 18 October 1984), there are some new versions of KERMIT available, including KERMIT for RT-11. This version of KERMIT is written in MACRO-11, and seems to be capable of operating over a 2400 bps communication line. This version makes use of Multi-Terminal support, so as yet it is not useable with TSX+. But we are looking at it.

Other versions include a new version for TOPS-10, available as NEW:KERMIT.EXE until 1 May 1985, when, if there are no problems, it will be removed to STD:. Until then, help can be obtained by typing

```
.HELP NEW:KERMIT
```

A new version of KERMIT-32 was installed on UQVAX:: at the end of March. These include mainly bug fixes and minor extensions. Of major interest here is that KERMIT-32 will now handle full network file specifications. This means that KERMIT-32 can be used to move a file between a micro-computer and any host in the network in one operation.

We also have new versions of KERMIT for RSX and APPLE II (for APPLE-DOS with Super Serial Card) which users will be interested in. These will be released for distribution as soon as possible. Watch file UQKL10::DSKX:[5,124] VERS10.DOC for the current status of all known versions of KERMIT. Please direct all enquiries concerning KERMIT to the electronic mail address MICROS.

Bryan Claire
extension 4078

4.3 A New Lease of Life for an Ageing PDP-11

Is your PDP-11/34 feeling a bit tired and run down? Doesn't quite have the zip and zing it once had? Well, there's an answer for all that now!

It's a hardware upgrade which involves removing your old and dying 11/34 processor, and implanting a sparkling new 11/73 processor. And the mere 256K bytes

of memory you've struggled with for so long is superceded by up to 4M bytes of new memory.

So, what does this mean in English? It means that the processor executes at about twice the speed of the old one. There's plenty of memory available for resident libraries and networks – even memory resident disks – to be permanently installed. You can expect little (if any) checkpointing to occur, which means tasks won't be delayed by waiting to be read back from disk. Altogether, it means you've a much faster and effective system.

This upgrade is a proven technology. Using techniques developed and refined by a team of Computer Centre engineering staff, several systems were successfully modified. For the past few months, Central Library, Surveying, and PCC have been using these upgraded systems. Civil Engineering, Education, and Social & Preventive Medicine are currently scheduled to be upgraded. These improvements have given the departments a great increase in the usefulness of their machines and existing equipment without the expense of a completely new computer system.

We've also evolved an upgrade path for PDP-11/23 systems. For those who have a 11/23 limited to only 256K bytes of memory, our technicians can expand the system to give 4M bytes of addressing space. (If you decide to use more than 256K bytes of memory, you may need new controllers for your RL01/RL02 disks.) Several machines have undergone this conversion by the Computer Centre.

And whatever sort of PDP-11/23 you have, an 11/73 processor (giving 3 or more times the CPU speed) is merely a plug-in replacement. The Centre has aided Geophysics along this direction. On a machine running the RSX-11M PLUS operating system, the 11/73 increases user task addressing from 64K bytes to an effective 192K bytes.

Interested? Then phone Geoff Dengate, on extension 3391. Have a talk about it. We'll discuss the pros and cons, how much it will cost, and what it will do for your system and productivity.

Mark Williams
extension 2921

5. Applications Development – Tony Bird, 3944

5.1 Additional Feature for VG Package

The VG package will now sort individual records into Library of Congress classification order. This new feature is contained within the menu and is invoked as follows:-

i. Make sure you are running the latest version of VG so either LOGIN/NEW or set path to new.

ii. .Run VG.

iii. Choose the feature "LCSORT" from the menu.

iv. Follow the prompts, i.e. enter the number of the field on which the file is to be sorted.

The result will be a file sorted in Library of Congress order.

Tony Bird
extension 3944

5.2 Information Concerning Courses

The following schedule of courses has tentatively been arranged for the period April – July, 1985:

April

1022	April 15-19 5 half days 9-12 each day
Introduction to IBM	April 15-18 4 half days 1-4 each day
Plotting	April 22-24 3 half days 9-12 each day
Introduction to PDP-10	April 22,23,24,26 4 half days 1-4 each day
SAS	April 29-May 3 5 half days 9-12 each day
RUNOFF	April 29-May 3 5 half days 1-4 each day

May

Elementary FORTRAN Programming (GU)	May 13-17 5 full days 9-12 + 1-4 each day

[Please note change of location for this course from UQ to GU]

Introduction to PDP-10	May 20-23 4 half days 9-12 each day
Conversion to IBM	May 20-22 3 half days 1-4 each day
Introduction to IBM	May 27-30 4 half days 9-12 each day
Typesetting	May 27-30 4 half days 1-4 each day

June

Elementary BASIC Programming	June 3-7 5 half days 9-12 each day
SPSS	June 3-7 5 half days 1-4.30 each day
Conversion to IBM	June 11-13 3 half days 9-12 each day
Introduction to IBM	June 18-21 4 half days 9-12 each day
Introduction to PDP-10 (GU)	June 18-21 4 half days 9-12 each day
Conversion to IBM (GU)	June 18-20 3 half days 1-4 each day

SQL	June 24-28 5 half days 9-12 each day
RUNOFF	June 24-28 5 half days 1-4 each day
Introduction to IBM (GU)	June 24-27 4 half days 9-12 each day
SPSS (GU)	June 24-28 5 half days 1-4.30 each day

July

SAS	July 1-5 5 half days 9-12 each day
RUNOFF (GU)	July 1-5 5 half days 1-4 each day
1022	July 8-12 5 half days 9-12 each day
SCRIPT	July 8-12 5 half days 1-4 each day
SQL (GU)	July 8-12 5 half days 1-4 each day
Introduction to IBM	July 16-19 4 half days 9-12 each day

General Notes:

1. Intending users of the PDP-10 system must be familiar with the content of the course *Introduction to PDP-10* (i.e. terminal usage, file-management, editing) before attending other PDP-10 courses.
2. In corresponding fashion, for the IBM system, users should have attended either *Conversion to IBM* (for previous PDP-10 users) or *Introduction to IBM* (for completely new users) before attending other IBM courses.
3. For the *Plotting* course, familiarity with elementary FORTRAN programming is necessary.
4. Courses held at St Lucia (with the exception of CAD/CAM courses) are conducted in the Computer Centre's teaching area near the Physics Annexe. Courses designated (GU) are held in Room 1.49, East Wing, SIA Building at Griffith University.
5. Staff and post-graduate students are admitted free to courses; all others pay at the rate of $10.00 per half-day session.
6. Enrolments for all courses may be made by phoning ext. 3018.

Barry Maher
extension 3021

6. Miscellaneous

6.1 Personal Computers

The demand for Personal Computers is increasing at a very rapid rate. Apart from the needs of Departments and Sections of the University, there are many individual members of staff and the student body wishing to purchase personal computers. A number of Universities in Australia and Overseas have joined the Apple University Consortium project which provides Apple Personal Computers at significant discounts under certain conditions. This University felt that it could not properly meet the conditions of the Consortium contract and it would not be wise to support personal computers from only one manufacturer for sale at discounted prices to staff and students.

On the other hand, there is a limit to the number of personal computer systems that can be supported within the University in terms of procurement procedures, warranty, after sales hardware and software service, network access and applications. It would appear that the major long term "standards" will be IBM and Apple with "UNIX"* becoming increasingly significant, particularly in the mid to upper range of personal work-stations.

The Prentice Computer Centre is currently negotiating with suppliers to ensure that any arrangements made are in the long term interests of the University, its staff and students. There are procedures, policies and initial funding which must be approved by appropriate University Authorities. Subject to such approvals, it is likely that the Prentice Computer Centre will, in the first instance, offer IBM and Apple Personal Computers under special academic purchase conditions to staff and students by the middle of this year.

In usual circumstances, I would be reluctant to announce future services until the proposals have been approved but in view of the numerous phone calls I have received, I thought that it may be helpful to provide some indication of our plans and the likely time-scale. It should be noted that the Centre already has some arrangements for purchase of personal computers at discounted rates for Departments of the University. Such discounts usually apply only if the equipment is ordered through the Centre. Please contact Geoff Dengate (extension 3391) if you require advice.

Director
extension 2189

*Trademark of AT&T Bell Laboratories

6.2 Prentice Computer Centre Organisation and Accommodation

Following upon the movement of the Computer Science Department to their new building, additional space has been made in the Hawken Building and the old Computer Science Huts to relieve overcrowding of staff and equipment and user service areas. Unfortunately, changes to our accommodation are occurring gradually, depending on funding of necessary alterations. This has caused some disruption to our services.

We have, during the past year, also reviewed our organisation structure with a view to improving our management and, as a result, our grade of service to users.

There are now five Sections within the Centre –

Central Computer Facilities
Distributed Computing
Engineering & Communications Services
Applications Development
Finance & Administration

Central Computer Facilities (Manager, Mr Allan Woodland)

This Section is responsible for the effective operation of the central computer systems. It includes computer operations, software procurement and maintenance, development of new services, the provision of client information services (HELP desk, Program Library, manuals etc.), system reliability and the security of central systems and data. The Section remains located on the Ground Floor of the Hawken Building.

Distributed Computing (Manager, Mr Geoff Dengate)

This section is responsible for the support of distributed computing systems in the Departments and Sections of the University of Queensland and Griffith University. The Section provides a hardware development and maintenance service as well as a software distribution and maintenance service. It provides advice on the most appropriate systems and upgrades to meet departmental needs and arranges purchases, installation and acceptance testing of equipment and software. This Section is now located on the Second Floor of the Hawken Building (access via stairs at Western end of the Building).

Engineering & Communications Services (Manager, Mr Graham Rees)

Responsible for appropriate engineering standards for purchase and maintenance of computer hardware; the design, development and implementation of data communications services for the University of Queensland and Griffith University; and the support of special engineering service applications (e.g. CAD/CAM, printed circuit board and, in the future, VLSI design). The development of communications software associated with higher level network services is a responsibility of this section. It is located in the Western end of the old Computer Science Hut also now occupied by the Credit Union.

Applications Development (Manager, Mr Tony Bird)

This Section offers contract systems design and programming services for computer applications on central computer facilities, mini and personal computers. Free consulting services of no more than one week's duration are available to assist users with the investigation of the feasibility of computer application in research projects. Short training courses in the use of computing facilities and applications packages are provided free of charge to staff and post-graduate students. The Section is located at the Eastern end of the Second Floor of the Hawken Building.

Finance & Administration (Manager, Mr Denis Antonellie)

Responsible for providing support to other sections of the Centre for financial systems, personnel matters, purchasing of supplies and equipment, health safety and security, accommodation and general administration. The Section provides advice to departments on contracts for purchase of computing equipment and as required places orders for purchase. It is responsible for preparing Prentice Computer Centre budgets, maintaining control over and reporting on the financial accounts of

the Centre, and conducting cost investigations of aspects of the Centre's operations. Mr Antonellie is located on the First Floor of the Hawken Building (East end).

Director
extension 2189

6.3 AVCC – Copyright and Computer Programs

The following statement from the AVCC is represented for guidance of users.

"(1) Following on the much publicised dispute between Apple Computer and Computer Edge over the question of copyright protection for computer software, the Federal Parliament passed the Act amending the Copyright Act to make it clear that computer programs are protected by copyright. The amending Act did no more than give statutory effect to the decision of the Federal Court in favour of Apple but it added some additional provisions intended to make the law more certain.

(2) The Act proceeds on the basis of bringing a computer program within the scope of the expression "literary work" as used in the Copyright Act. Computer program is defined as meaning:

> "An expression, in any language, code or notation, of a set of instructions (whether with or without related information) intended, either directly or after either or both of the following:
>
> (a) conversion to another language, code or notation;
>
> (b) reproduction in a different material form, to cause a device having digital information processing capabilities to perform a particular function."

(3) Subject to what is said below under back-up copies, the reproduction of a computer program (as defined) will constitute a breach of the Copyright Act – a position which the Federal Court says was always so.

(4) The Act also prohibits the making of what is termed an "adaptation" being one of the exclusive rights given to the owner of the copyright in a literary work. In relation to a computer program an adaptation is defined as:

> "a version of the work (whether or not in the language, code or notation in which the work was originally expressed) not being a reproduction of the work".

(5) This definition is intended to prevent persons purchasing a computer program in one language and converting it to another language *without the consent of the copyright owner.* It is this last qualification that will apply in most cases in which universities are concerned with the use of computer programs. If it is apparent to all the parties involved in the purchase of a program that its use will, of necessity, involve an adaptation of the work (as defined), the agreement to purchase will carry with it an implied right to make the adaptation. If, however, there should be any doubt about this fact, it would be desirable for the agreement to purchase the program to make express mention of the fact and ensure that the university is authorised by the owner of the copyright in the program to deal with it in the appropriate fashion.

(6) The Act makes specific provision for the making of a back-up copy of either or both the original or an adaptation of a computer program. This right is made subject to the reproduction being made by or on behalf of the owner of the copy of the program from which the reproduction is made. Thus a university can only make back-up copies of programs that it owns. If a program is on loan or has been hired, the right to make such copies will have to be expressly authorised by the copyright owner. In addition, the reproduction may only be made for the purpose of being used in lieu of the original copy in the event that the original copy is lost, destroyed or rendered unuseable. Such a back-up copy cannot be made from an infringing copy of the computer program or where the owner of the copyright in the program has given an express direction to the contrary.

(7) The Act does not deal with the case of a program being reproduced at a number of terminals that are connected to a main terminal for teaching purposes. If it is intended to use a program in this way, the right to do so will have to be expressly obtained from the copyright owner either at the time of purchase or subsequently.

(8) Finally the amending Act makes it an offence to publish an advertisement for the supply in Australia of a copy of a computer program if the person believes that the copy is an infringing copy.

(9) As stated previously, the amending Act is not intended to make any substantial change to the existing law. It is intended only to clarify the present position and universities should, in general terms, feel free to continue existing practices unless those practices run counter to the matters set out above."

In addition to the above, it should be recognised that most software used within the University is obtained subject to a licence agreement which may further limit the use of the software. For example, the use of versions of UNIX* which have been purchased under an academic licence is limited to teaching and such research as would meet the Academic Board's Guidelines for acceptance of external research grants.

Software developed within the University should always be supplied for use of others outside the University subject to a licence even if no charge is made for the software. A pro-forma licence is available from the Program Librarian (extension 3943).

Please contact the Director if you have any doubts regarding conforming use of software.

Director
extension 2189

*UNIX is a trademark of AT&T